



## ANALYTICAL REPORT

Lab Number:	L1109106
Client:	Haley & Aldrich, Inc. 100 Corporate Place Suite 105 Rocky Hill, CT 06067-1803
ATTN:	Deborah Motycka Downie
Phone:	(860) 282-9400
Project Name:	23 BARRY PLACE
Project Number:	35034-103
Report Date:	07/06/11

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Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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**Project Name:** 23 BARRY PLACE  
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<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1109106-01	652 (0.5-2)	Not Specified	06/22/11 10:40

**Project Name:** 23 BARRY PLACE  
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**CT DEP Reasonable Confidence Protocols  
Laboratory Analysis  
QA/QC Certification Form**

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed (including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents)?	YES
1a	Were the method specified preservation and holding time requirements met?	YES
1b	VPH & EPH Methods Only: Was the VPH or EPH Method conducted without significant modifications (see Section 11.3 of respective Methods)?	N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	YES
3	Were all samples received at an appropriate temperature (<6°C)?	YES
4	Were all QA/QC performance criteria specified in the CT DEP Reasonable Confidence Protocol documents achieved?	YES
5a	Were reporting limits specified or referenced on the chain-of-custody?	YES
5b	Were these reporting limits met?	YES
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	NO
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	NO

**Note:** For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or question B is "No", the data package does not meet the requirements for "Reasonable Confidence".

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### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

For additional information, please contact Client Services at 800-624-9220.

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### Report Submission

The results of the PCB analyses will be issued under separate cover.

### RCP Related Narratives

#### Semivolatile Organics

In reference to question 6:

At the client's request, all submitted samples were not analyzed for the full RCP list of constituents identified in the method specific analyte list presented in the RCP documents.

### ETPH

A copy of the Mass Discrimination Check is included as an addendum.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Elizabeth Simmons

Title: Technical Director/Representative

Date: 07/06/11

# ORGANICS

# SEMIVOLATILES

**Project Name:** 23 BARRY PLACE**Lab Number:** L1109106**Project Number:** 35034-103**Report Date:** 07/06/11**SAMPLE RESULTS**

**Lab ID:** L1109106-01  
**Client ID:** 652 (0.5-2)  
**Sample Location:** Not Specified  
**Matrix:** Soil  
**Analytical Method:** 77,8270C  
**Analytical Date:** 07/02/11 14:51  
**Analyst:** JB  
**Percent Solids:** 90%

**Date Collected:** 06/22/11 10:40  
**Date Received:** 06/22/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 06/28/11 19:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
CT RCP PAHs - Westborough Lab						
Acenaphthene	1700		ug/kg	280	--	1
Fluoranthene	1900		ug/kg	210	--	1
Naphthalene	1700		ug/kg	350	--	1
Benzo(a)anthracene	380		ug/kg	210	--	1
Benzo(a)pyrene	330		ug/kg	280	--	1
Benzo(b)fluoranthene	460		ug/kg	210	--	1
Benzo(k)fluoranthene	ND		ug/kg	210	--	1
Chrysene	440		ug/kg	210	--	1
Acenaphthylene	ND		ug/kg	280	--	1
Anthracene	780		ug/kg	210	--	1
Benzo(ghi)perylene	ND		ug/kg	280	--	1
Fluorene	1600		ug/kg	350	--	1
Phenanthrene	4200		ug/kg	210	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	210	--	1
Indeno(1,2,3-cd)Pyrene	410		ug/kg	280	--	1
Pyrene	1200		ug/kg	210	--	1
2-Methylnaphthalene	1900		ug/kg	420	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	63		30-130
2-Fluorobiphenyl	81		30-130
4-Terphenyl-d14	91		30-130

Project Name: 23 BARRY PLACE

Lab Number: L1109106

Project Number: 35034-103

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### Method Blank Analysis Batch Quality Control

Analytical Method: 77,8270C  
 Analytical Date: 07/02/11 14:57  
 Analyst: JB

Extraction Method: EPA 3546  
 Extraction Date: 06/28/11 19:11

Parameter	Result	Qualifier	Units	RL	MDL
CT RCP PAHs - Westborough Lab for sample(s): 01 Batch: WG475886-1					
Acenaphthene	ND		ug/kg	260	--
Fluoranthene	ND		ug/kg	200	--
Naphthalene	ND		ug/kg	330	--
Benzo(a)anthracene	ND		ug/kg	200	--
Benzo(a)pyrene	ND		ug/kg	260	--
Benzo(b)fluoranthene	ND		ug/kg	200	--
Benzo(k)fluoranthene	ND		ug/kg	200	--
Chrysene	ND		ug/kg	200	--
Acenaphthylene	ND		ug/kg	260	--
Anthracene	ND		ug/kg	200	--
Benzo(ghi)perylene	ND		ug/kg	260	--
Fluorene	ND		ug/kg	330	--
Phenanthrene	ND		ug/kg	200	--
Dibenzo(a,h)anthracene	ND		ug/kg	200	--
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	260	--
Pyrene	ND		ug/kg	200	--
2-Methylnaphthalene	ND		ug/kg	400	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	72		30-130
2-Fluorobiphenyl	67		30-130
4-Terphenyl-d14	77		30-130



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 23 BARRY PLACE

**Project Number:** 35034-103

**Lab Number:** L1109106

**Report Date:** 07/06/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
CT RCP PAHs - Westborough Lab Associated sample(s): 01 Batch: WG475886-2 WG475886-3								
Acenaphthene	80		84		40-140	5		30
Fluoranthene	80		85		40-140	6		30
Naphthalene	72		78		40-140	8		30
Benzo(a)anthracene	97		101		40-140	4		30
Benzo(a)pyrene	83		89		40-140	7		30
Benzo(b)fluoranthene	97		100		40-140	3		30
Benzo(k)fluoranthene	97		105		40-140	8		30
Chrysene	99		103		40-140	4		30
Acenaphthylene	70		74		40-140	6		30
Anthracene	90		96		40-140	6		30
Benzo(ghi)perylene	92		98		40-140	6		30
Fluorene	80		85		40-140	6		30
Phenanthrene	89		95		40-140	7		30
Dibenzo(a,h)anthracene	92		96		40-140	4		30
Indeno(1,2,3-cd)Pyrene	87		93		40-140	7		30
Pyrene	79		85		40-140	7		30
2-Methylnaphthalene	68		74		40-140	8		30

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 23 BARRY PLACE

**Project Number:** 35034-103

**Lab Number:** L1109106

**Report Date:** 07/06/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
CT RCP PAHs - Westborough Lab Associated sample(s): 01 Batch: WG475886-2 WG475886-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	65		74		30-130
2-Fluorobiphenyl	67		70		30-130
4-Terphenyl-d14	82		87		30-130

# **PETROLEUM HYDROCARBONS**

**Project Name:** 23 BARRY PLACE**Lab Number:** L1109106**Project Number:** 35034-103**Report Date:** 07/06/11**SAMPLE RESULTS**

**Lab ID:** L1109106-01  
**Client ID:** 652 (0.5-2)  
**Sample Location:** Not Specified  
**Matrix:** Soil  
**Analytical Method:** 11,3-99  
**Analytical Date:** 07/02/11 22:12  
**Analyst:** KG  
**Percent Solids:** 90%

**Date Collected:** 06/22/11 10:40  
**Date Received:** 06/22/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 07/01/11 09:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab						
ETPH-CT	88000		ug/kg	15000	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	71		50-150

**Project Name:** 23 BARRY PLACE**Lab Number:** L1109106**Project Number:** 35034-103**Report Date:** 07/06/11**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 11,3-99  
Analytical Date: 07/02/11 00:27  
Analyst: KG

Extraction Method: EPA 3546  
Extraction Date: 07/01/11 09:36

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG476555-1					
ETPH-CT	ND		ug/kg	13000	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	60		50-150

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** 23 BARRY PLACE**Project Number:** 35034-103**Lab Number:** L1109106**Report Date:** 07/06/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG476555-2								
ETPH-CT	63		-		60-120	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	63				50-150

# **Matrix Spike Analysis** Batch Quality Control

**Project Name:** 23 BARRY PLACE  
**Project Number:** 35034-103

**Lab Number:** L1109106  
**Report Date:** 07/06/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 QC Batch ID: WG476555-3 QC Sample: L1109110-01 Client ID: MS Sample												
ETPH-CT	18000	112000	65000	42	Q	-	-		50-150	-		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
o-Terphenyl	64				50-150

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** 23 BARRY PLACE

**Project Number:** 35034-103

**Lab Number:** L1109106

**Report Date:** 07/06/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 QC Batch ID: WG476555-4 QC Sample: L1109110-01 Client ID: DUP Sample						
ETPH-CT	18000	16000	ug/kg	12		30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	73		75		50-150



# **INORGANICS & MISCELLANEOUS**

**Project Name:** 23 BARRY PLACE**Project Number:** 35034-103**Lab Number:** L1109106**Report Date:** 07/06/11**SAMPLE RESULTS****Lab ID:** L1109106-01**Client ID:** 652 (0.5-2)**Sample Location:** Not Specified**Matrix:** Soil**Date Collected:** 06/22/11 10:40**Date Received:** 06/22/11**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90		%	0.10	NA	1	-	06/23/11 10:30	30,2540G	JC



**Lab Duplicate Analysis**  
Batch Quality Control

Project Name: 23 BARRY PLACE

Project Number: 35034-103

Lab Number: L1109106

Report Date: 07/06/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG474916-1 QC Sample: L1109105-04 Client ID: DUP Sample						
Solids, Total	76	74	%	3		20

**Project Name:** 23 BARRY PLACE**Project Number:** 35034-103**Lab Number:** L1109106**Report Date:** 07/06/11**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Reagent H2O Preserved Vials Frozen on:** NA**Cooler Information Custody Seal****Cooler**

B Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1109106-01A	Amber 120ml unpreserved	B	N/A	2.3	Y	Absent	CT-PAH(14),TS(7),ETPH(14)

**Container Comments**

L1109106-01A

\*Values in parentheses indicate holding time in days

**Project Name:** 23 BARRY PLACE  
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## GLOSSARY

### Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### Data Qualifiers

- |          |  |
|----------|--|
| <b>A</b> | - Spectra identified as "Aldol Condensation Product".  |
| <b>B</b> | - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. |
| <b>C</b> | - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.   |
| <b>D</b> | - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.  |
| <b>E</b> | - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.   |
| <b>G</b> | - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.   |
| <b>H</b> | - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.   |
| <b>I</b> | - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.   |
| <b>M</b> | - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.   |
| <b>P</b> | - The RPD between the results for the two columns exceeds the method-specified criteria.   |
| <b>Q</b> | - The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less   |

**Report Format:** Data Usability Report



**Project Name:** 23 BARRY PLACE**Lab Number:** L1109106**Project Number:** 35034-103**Report Date:** 07/06/11**Data Qualifiers**

than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.**RE** - Analytical results are from sample re-extraction.**J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).**ND** - Not detected at the reporting limit (RL) for the sample.

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**Report Date:** 07/06/11

## REFERENCES

- 11 Analysis of Extractable Petroleum Hydrocarbons (ETPH) Using Methylene Chloride Gas Chromatograph/Flame Ionization Detection. Environmental Research Institute, University of Connecticut. March 1999.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 77 Connecticut DEP Quality Assurance and Quality Control Requirements for SW-846 Methods. CTDEP Reasonable Confidence Protocols (RCPs). Version 1.0, July 2005.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certificate/Approval Program Summary

Last revised June 7, 2011 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.  
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

### Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

*Drinking Water* (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

*Wastewater/Non-Potable Water* (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

*Solid Waste/Soil* (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons. )

### Maine Department of Human Services Certificate/Lab ID: 2009024.

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

*Wastewater/Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500CI-D, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil* (Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

### Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

*Drinking Water* (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water* (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.



Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

**New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO<sub>3</sub>-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH<sub>3</sub>-H, 4500NO<sub>3</sub>-F, 4500NO<sub>2</sub>-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3580A, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

**New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO<sub>3</sub>-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO<sub>3</sub>-F, 4500NO<sub>2</sub>-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH<sub>3</sub>-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270C-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846, 6010B, 7196A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 8270C-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

**New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO<sub>3</sub>-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water* (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH<sub>3</sub>-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO<sub>3</sub>-F, 4500-NO<sub>2</sub>-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

*Solid & Hazardous Waste* (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

**North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.**

**Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.***

*Drinking Water* (Organic Parameters: EPA 524.2)

*Non-Potable Water* (Inorganic Parameters: EPA 1312. Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH<sub>3</sub>-H. Organic Parameters: 3540C, 3545, 3546, 3550B,

3580A, 3630C, 5035, 8015B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

**Rhode Island Department of Health** Certificate/Lab ID: LAO00065. *NELAP Accredited via NY-DOH.*

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

**Texas Commisison on Environmental Quality** Certificate/Lab ID: T104704476-09-1. *NELAP Accredited.*

*Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S<sup>2-</sup> D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)*

*Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)*

**Department of Defense** Certificate/Lab ID: L2217.

*Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)*

*Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)*

*Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)*

**The following analytes are not included in our current NELAP/TNI Scope of Accreditation:**

**EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO<sub>2</sub> in a soil matrix, NO<sub>3</sub> in a soil matrix, SO<sub>4</sub> in a soil matrix.



## ETPH Mass Discrimination Check Form

Instrument ID: Petro9A.i  
Lab File ID: DATA013.D

injection date: 7/01/2011 23:53:00 PM

	RF	%D
Total Etph	3628	
Nonane	3701	2.01
Decane	3617	-0.30
Dodecane	3641	0.36
Tetradecane	3670	1.16
Hexadecane	3678	1.38
Octadecane	3737	3.00
Eicosane	3689	1.68
Docosane	3575	-1.46
Tetracosane	3724	2.65
Hexacosane	3714	2.37
Octacosane	3700	1.98
triacontane	3715	2.40
Dotriacontane	3624	-0.11
Tetratriacontane	3568	-1.65
Hexatriacontane	3071	-15.35

Associated Samples: WG476555-1  
WG476555-2  
WG476555-3  
WG476555-4

## ETPH Mass Discrimination Check Form

Instrument ID: Petro9A.i  
Lab File ID: DATA020.D

injection date:

7/2/2011 7:38

	RF	%D
Total Etph	3734	
Nonane	3886	4.07
Decane	3831	2.60
Dodecane	3834	2.68
Tetradecane	3834	2.68
Hexadecane	3827	2.49
Octadecane	3874	3.75
Eicosane	3796	1.66
Docosane	3588	-3.91
Tetracosane	3804	1.87
Hexacosane	3761	0.72
Octacosane	3741	0.19
triacontane	3770	0.96
Dotriacontane	3688	-1.23
Tetratriacontane	3648	-2.30
Hexatriacontane	3127	-16.26

Associated Samples:

WG476555-1  
WG476555-2  
WG476555-3  
WG476555-4  
L1109387-06

## ETPH Mass Discrimination Check Form

Instrument ID: Petro9A.i  
Lab File ID: DATA001.D

Injection date: 7/02/2011 18:08:00 PM

	RF	%D
Total Etph	3687	
Nonane	3660	-0.73
Decane	3605	-2.22
Dodecane	3690	0.08
Tetradecane	3725	1.03
Hexadecane	3763	2.06
Octadecane	3825	3.74
Eicosane	3771	2.28
Docosane	3651	-0.98
Tetracosane	3797	2.98
Hexacosane	3784	2.63
Octacosane	3779	2.50
triacontane	3789	2.77
Dotriacontane	3687	0.00
Tetratriacontane	3625	-1.68
Hexatriacontane	3159	-14.32

Associated Samples:

- L1109470-02
- L1109106-01
- L1109470-03
- L1109460-02
- L1109460-03
- L1109460-04
- L1109470-01

## ETPH Mass Discrimination Check Form

Instrument ID: Petro9A.i  
Lab File ID: DATA014.D

injection date: 7/3/2011 3:47

	RF	%D
Total Etph	3704	
Nonane	3690	-0.38
Decane	3676	-0.76
Dodecane	3709	0.13
Tetradecane	3732	0.76
Hexadecane	3759	1.48
Octadecane	3822	3.19
Eicosane	3776	1.94
Docosane	3677	-0.73
Tetracosane	3840	3.67
Hexacosane	3803	2.67
Octacosane	3784	2.16
triacontane	3809	2.83
Dotriacontane	3696	-0.22
Tetratriacontane	3630	-2.00
Hexatriacontane	3160	-14.69

Associated Samples: L1109470-02  
L1109106-01  
L1109470-03  
L1109460-02  
L1109460-03  
L1109460-04  
L1109470-01